

species. Should the temperature of the water fail to reach the effective point which would induce shedding of eggs by the females, still the spawning of the latter could be provoked by the sperm discharged by the males which are more susceptible to the increase in temperature. In most of the cases observed by the author when several oysters were kept together, the males spawned first and induced the shedding of eggs by the females. The process, once started, spreads by mutual stimulation of the two sexes throughout the whole oyster bed and results in simultaneous spawning of the oyster population.

MALACOLOGY.—*A new land shell of the genus Rhiostroma from Siam.*¹

PAUL BARTSCH, U. S. National Museum.

Dr. Hugh M. Smith, Fisheries Adviser to His Majesty's Government, Bangkok, Siam, has sent to me for determination a magnificent specimen of *Rhiostroma*, which he collected at Kao Sabap, south-eastern Siam, June 28, 1931, at an elevation of 450 meters.

Rhiostromas are ground-dwelling mollusks that frequent leaf mulch, burying themselves beneath such debris, and coming to the surface on moist days. Among a dozen or more known species of *Rhiostroma*, the present one has only one rival for size, namely, *Rhiostroma hainesi* Pfeiffer, from which it is at once distinguished by its lesser number of whorls, *Rhiostroma smithi* having but 5, while *Rhiostroma hainesi* has 7.

***Rhiostroma smithi*, n. sp.**

Fig. 1

The shell is depressed helicoid, excepting the last two-fifths of the last turn which are solute, and which are deflected outward and downward. The under surface is openly umbilicated, all the whorls showing within the umbilicus. The early turns are straw-colored, the later whorls tending to pale olivaceous brown. In the type there are no color markings beyond this except an occasional darker varicial streak. (On the two paratypes, however, we have a subperipheral zone of chestnut brown and fine narrow axial vermiculations of brown. These, however, are not very conspicuous.) The early whorls are sufficiently eroded on the upper surface to make it impossible to differentiate the termination of the nuclear portion in the three specimens before us. The sculpture begins to show on the last half of the second whorl; from there on the shell is covered by a moderately thick periostracum. The sculpture of the shell consists of numerous, slender, threadlike wrinkles which assume almost the strength of slender lamellae on the summit of the whorls near the suture where they have been protected. This in reality represents projecting portions of the periostracum. These incremental threads are closely approximated and are of somewhat varying strength. They give to

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the surface of the shell a decidedly wrinkled appearance. What is said of the sculpture on the dorsal surface also obtains on the under side of the shell, the lines of growth extending into the umbilicus. The solute portion of the last whorl shows a feeble carina, corresponding to the posterior angle of the aperture, which is rendered conspicuous by the fact that the periostracum here is worn and leaves a white streak. This carina terminates anteriorly in the ear of the peristome. The aperture is circular; the peristome is double, forming an ear or anteriorly open tube at the posterior angle of the aperture. This ear is rather short. The outer peristome is conspicuously expanded from the ear to the middle of the basal lip, becoming decidedly narrow on the parietal wall. The inner peristome projects slightly above the outer and is very slightly reflected. Both of them contribute to the production of the ear. The operculum forms a multispiral elevated cone, which is slightly concave in the middle on the outside. There are more than 14 whorls to the operculum. The outer portion of the operculum consists of an oblique calcareous lamina, which is spirally disposed and which bears on its outer surface a brownish periostracum which extends for a distance equaling the width of the lamella, beyond this being cut up into ragged fringes. The inside of the operculum is deeply cupped.

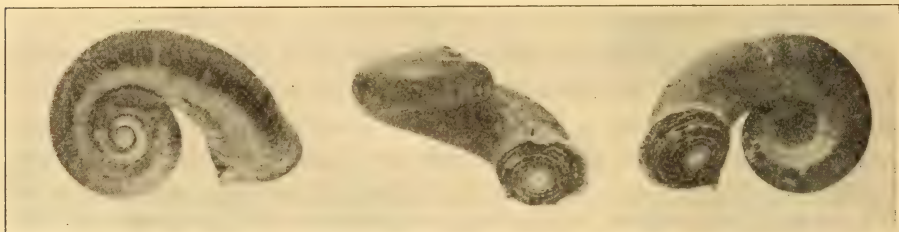


Fig. 1. *Rhiosstoma smithi*

The type, U. S. N. M. No. 382943, has 5 whorls, and measures: Altitude, 20.3 mm.; greater diameter, 34.5 mm.; lesser diameter, 21.0 mm.

Two paratypes, U. S. N. M. No. 382944, have each 5 whorls, and measure: Altitude, 21 mm., 19.8 mm.; greater diameter, 34 mm., 32.3 mm.; lesser diameter, 22.3 mm., 20.2 mm., respectively.

PROCEEDINGS OF THE ACADEMY AND AFFILIATED SOCIETIES

THE ACADEMY

243D MEETING

The 243d meeting of the ACADEMY was a joint meeting with the Washington Society of Engineers and the District of Columbia Section of the American Society of Civil Engineers, and was held in the Auditorium of the Interior Department Building, on Thursday, November 19, 1931. About 200 persons were present. President COBB called the meeting to order at 8:20 P.M., and turned the chair over to Dr. R. S. PATON, Director of the Coast and Geodetic Survey who introduced as speaker of the evening, Professor JYOJI SUEHIRO, Director of the Earthquake Research Institute of The Tokyo Imperial University, who delivered an illustrated address, an abstract of which follows: